

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings include changes to Fig(s). 4 and replace the original sheet(s) including such figures.

Attachment(s): Replacement Sheet including amended Fig. 4.

REMARKS

This paper is responsive to a Final Office action dated April 27, 2006. Claims 1-53 were examined. Non-narrowing amendments have been made to claims 2, 10, 49, and 53. Claim 10 has been amended to correct grammar. Claims 2 and 49 have been amended to recite “decryption” instead of “encryption.” Claim 53 has been amended to include the term “count.” Claims 23 – 24 have been cancelled. New claims 54 and 55 have been added. Claim 33 has been amended.

Drawings and Specification

A replacement sheet is attached amending Figure 4. Figure 4 has been amended to depict encrypted payload 310 flowing into the padding engine 424 and into the message digest generator 404. Accordingly, text of the specification that corresponds to Figure 4 has also been amended. No new matter has been added. Support for the amendments can be found in claims 13, 32, and 40.

Claim Rejections – 35 U.S.C. §101

Claims 1-53 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. The Office has deemed that all of the independent claims fall outside of statutory categories. Applicant respectfully submits that all of the independent claims fall within one of the statutory categories enumerated in §101. Independent claims 1, 14, 49, and 53 are directed to novel methods (process category). Claims 33, 44, and 48 are respectively directed to a novel receiver, transmitter, and system (machine category). According to the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility,

The burden is on the USPTO to set forth a prima facie case of unpatentability. Therefore if the examiner determines that it is more likely than not that the claimed subject matter falls outside all of the statutory categories, the examiner must provide an explanation.

The Examiner first states that all of the independent claims are directed to methods. The Examiner’s first statement is obviously incorrect. The Examiner then states that a session count evaluator and a decryption engine “are nothing more than a computer program or software.”

Machine Category

As stated above, the burden is on the Office to show that the claims fall outside of the statutory category. For the machine category claims, the Examiner has concluded that the independent claims 33, 44, and 40 are directed to nothing more than computer programs and software. However, Applicant's specification specifically states at paragraph [0022] that "although in the exemplary embodiment the encryption, message digest, padding and other functions are performed using software code running on the controller 120, the various functional blocks described below may be implemented either solely in or in any combination of hardware, software, or firmware." The explanation provided by Examiner for erroneously determining that claims 33, 44, and 48 are directed to methods contradicts the specification and fails to satisfy the burden on the Office. Furthermore, the analysis of a process category claim given by the Examiner is incorrect.

Process Category

It should be obvious to the Examiner that the method claims fall within the process category of §101. After determining that a claim falls under the process category of §101, the Examiner should then determine whether the process is directed to nothing more than abstract ideas, such as mathematical algorithms, natural phenomena, or laws of nature. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Section IV. If a process claim is directed to an abstract idea, then the Examiner determines whether the claim falls within a judicially created exception requiring production of a useful, tangible, and concrete result (Applicant notes that the analysis for the judicially created exception as performed by the Examiner is flawed). A reasonable and correct analysis cannot deem any of the method claims as directed to any one of mathematical algorithms, natural phenomena, or laws of nature. Upon determining that the method claims are process category claims that are not directed solely to mathematical algorithms, natural phenomena, or laws of nature, then the analysis is complete and the Examiner should conclude that the claims are directed to statutory subject matter falling within the process category of §101.

After a reasonable and correct analysis, the Office should determine that all of the claims are directed to statutory subject matter. Applicant respectfully requests the rejections under §101 be withdrawn, since all of the independent claims are directed to statutory subject matter.

Claim Rejections – 35 U.S.C. §112

Claims 1-53 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The Examiner states that all of the claims are indefinite because the independent claims recite “fixed length segment” and “a portion of the fixed length segment.” The Office Action states that there is no indication of how the portion is selected and there is no description of the fixed length segment. It should be clear from the claims that the “fixed length segment” is of a key stream (either encryption or decryption). The manner of selecting the fixed length segment is not necessary to recite to satisfy §112, second paragraph. The Examiner confuses breadth with indefiniteness. Requiring a particular selection technique to be recited in the claims would unnecessarily narrow the scope of the claims. Having different selection techniques within the scope of the claims does not make the claims indefinite. *See* MPEP 2173.02 and 2173.04. The claims are not indefinite, and Applicant requests the §112, second paragraph rejections to be withdrawn.

Claims 4, 17, 25, 36, and 44 have been amended to recite “Rivest Cipher 4” instead of “RC4.” The amendments are non-narrowing.

Claim Rejections – 35 U.S.C. §102

Claims 1-8, 14-27, 33-39, 41-51, and 53 are rejected under 35 U.S.C. §102(e) as being anticipated by Medvinsky, U.S. Publication No. 2002/0094081 (hereinafter “Medvinsky”).

To reject each of the independent claims, the Examiner quotes the corresponding claim language and cites to paragraphs [0017] – [0018] and/or paragraphs [0033] – [0034] of Medvinsky (or refers to rejection of another claim). These paragraphs disclose the following:

1) Paragraphs [0017] – [0018]

- generating a key stream and using a portion of the generated key stream for encryption of RTP voice packets and for decryption of the encrypted voice packets

- generating a second key stream for a second encoder/decoder, switching from a first key stream to a second key stream to prevent reuse of a portion of the first key stream

2) Paragraphs [0033] – [0034]

- employing time stamps to perform synchronization of the key stream at the remote end.
- including a time stamp in a RTP voice packet for use as an index into the key stream at the remote end, which is generated on-demand or is free-running

Claims 1, 14, 49, and 53

The independent claims 1, 14, 49, and 53 recite selecting a fixed length segment of a continuous key stream. The relied upon paragraphs (or any other paragraphs of Medvinsky) do not disclose or suggest selecting a fixed length segment of a continuous key stream. Medvinsky discloses using a portion of a key stream for encryption, but fails to disclose or suggest selecting a fixed-length segment of a continuous key stream. Medvinsky discloses indexing into a key stream with a received RTP timestamp and applying a portion of the key stream for decryption, but again fails to disclose or suggest selecting a fixed-length segment based on a received session count.

Claims 33, 41, and 48

The paragraphs [0033] – [0034] are also relied upon to reject claim 33. Claim 33 recites “a session count evaluator to determine if a difference between a received session count...and a locally generated session count is less than a threshold.” Medvinsky fails to disclose or suggest the recited limitation. The Examiner argues that the session count may be the RTP timestamp or even the SSRC disclosed in Medvinsky. Regardless the validity of the Examiner’s interpretation, Medvinsky does not disclose or suggest determining if a difference between timestamps or between SSRCs is less than a threshold.

Claim 41 is rejected with reference to claim 14, and claim 48 is rejected with reference to rejections of claim 33 and 41. Claim 41 recites “a session count generator configured to generate a packet number in accordance with the fixed length segment.” Medvinsky discloses generating a RTP timestamp at a local MTA in accordance with a clock. Medvinsky fails to disclose or suggest generating packet number in accordance with a fixed length segment.

Claim 48 recites the limitations of claims 33 and 41. Medvinsky fails to disclose or suggest claim 48 at least for the reasons given above for claims 33 and 41.

Claims 20 and 47 variously recite truncating a session count, while claims 8, 27, 38, and 51 variously recite expanding a session count. Medvinsky fails to disclose or suggest truncating or expanding a session count, a time stamp, or a session source identifier.

Claim Rejections – 35 U.S.C. §103

Claims 9-13, 28-32, 40, and 52 are rejected under 35 U.S.C. §103(a) as being unpatentable over Medvinsky in further view of Chang et al, U.S. Patent No. 6,105,012 (hereinafter “Chang”). The claims 9 – 13, 28 – 32, 40, and 52 are at least allowable because they depend from corresponding ones of the above allowable claims. Furthermore, the Office Action cites to pages 4 and 5, paragraphs 0052 – 0054 for the rejections, but Chang is a patent that identifies columns and lines, not paragraph numbers. It is not clear whether pages 4 and 5 are the fourth and fifth pages from the cover sheet or the first page after the Figures. Applicant respectfully requests the Office to identify sections of Chang that purportedly support the rejections by column and lines.

Applicant also notes that none of the art of record discloses or suggests truncating a session count or a truncator configured to truncate a session count as variously recited in claims 13, 30, 32, and 40. The Office seems to overlook these language of these claims.

Conclusion

In summary, claims 1-53 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

CERTIFICATE OF MAILING OR TRANSMISSION

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Respectfully submitted,



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